

## New *Yamatosa* species (Coleoptera: Carabidae: Rhysodini) from Borneo

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### Taxonomy, description, new species, Carabidae, Rhysodini, *Yamatosa*, Borneo

**Abstract.** *Yamatosa jakli* sp. nov. from Southern Borneo is described and illustrated. The new species is compared with the morphologically most similar congeners and hypotheses concerning their relationships are discussed.

### INTRODUCTION

The genus *Yamatosa* R. T. Bell et J. R. Bell, 1979 is a genus of Rhysodini known from South Eastern Asia and comprises thirteen known species. They occur in south-eastern part of the Palaearctic region and mainly in Oriental region from Himalaya to Japan, Taiwan, Java, Sumatra and Borneo (Bell & Bell 1978, 1979, 1985, 1987, 1989, 2002, 2009). The purpose of the work presented here is to describe a new species belonging to this genus.

### MATERIAL AND METHODS

This paper is based on a study of type material of the new species described below and of few representatives of related species from the author's collection (cHO - collection of Oldřich Hovorka, Dobříš, Czech Republic).

Measurements were made with a MBS-10 stereoscopic microscope, at magnifications of 8x, 16x and 32x. Measurements of body parts and corresponding abbreviations used in the text are as follows:

- EL = elytral length - length of left elytron measured along suture from basal border to apex;
- EW = elytral width - maximal width of both elytra combined;
- HL = length of head - measured from apex of clypeus to posterior margin of temporal lobe;
- HW = width of head - maximal width of head (including eyes);
- PL = pronotal length - length of pronotum measured along mid-line;
- PW = pronotal width - maximal width of pronotum;
- TL = total length - length measured from the apex of left mandible (mandibles closed) to the apex of left elytron.

The morphological terms used in the present study are adopted from Bell & Bell (1978, 1979).

Type specimen of the newly described species is provided with a red printed label: “*Yamatosa jakli* sp. nov., HOLOTYPE, det. O. Hovorka, 2010”.

## DESCRIPTION

### *Yamatosa jakli* sp. nov. (Figs 1-4)

**Type material.** Holotype (♂) labelled: “Indonesia, South Kalimantan, Kandangan distr., Loksado vill. 17 km NE, 900 m a.s.l., lgt. St. Jákl, 9.10.1997” (cHO).

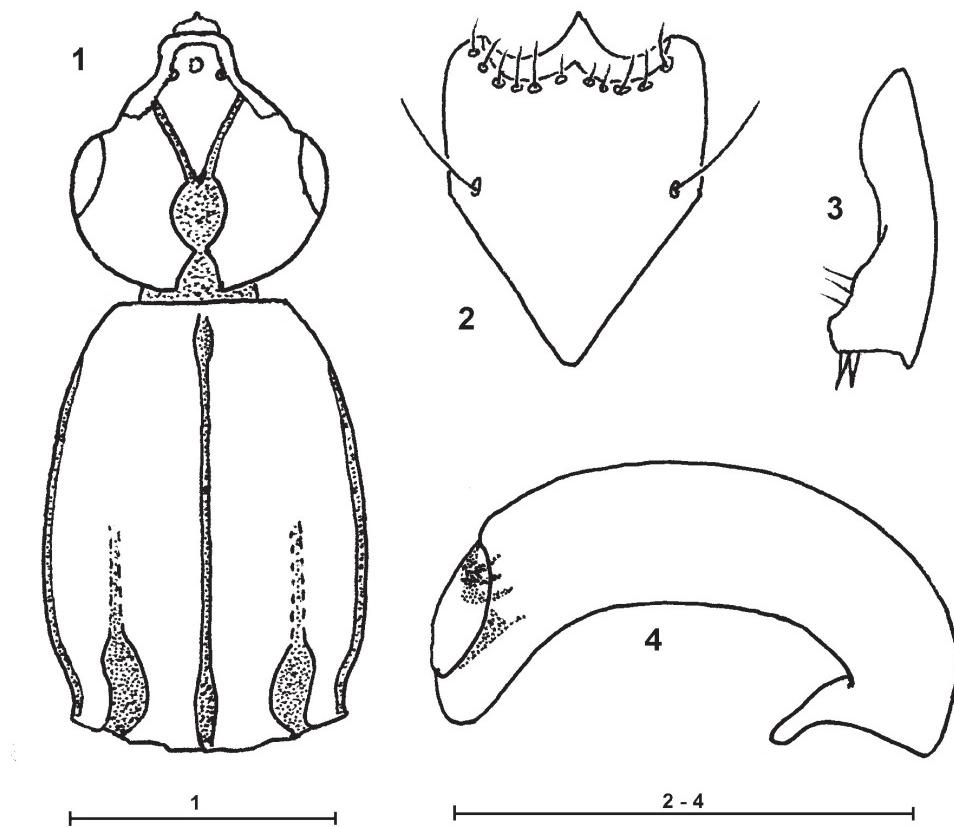
**Description.** Habitus - the new species is medium-sized, habitually very similar to its congeners. Body colour (including appendices) dark brown to black, elytra brown, tarsomeres lighter brown and palpomeres red-brown to yellow-brown. Body narrow, elongated. TL 6.4 mm. Head as long as wide, HL:HW 1.0. Pronotum markedly longer than wide, PL:PW 1.40. Elytra elongate, EL:EW approximately 2.5, widest in anterior third.

Head (Fig. 1) with large eyes. Antennae - antennomere XI longer than wide, subacute at apex, but without distinct apical stylet. Anterior tentorial pits small, but distinct. Frontal groove narrow, but deep and distinct, antennal and clypeal grooves very narrow, shallow, much less distinct than frontal ones, orbital groove absent. Median lobe relatively long, its tip much narrower and sharper than in *Y. draco* or *Y. boysi*. Temporal lobe shallowly sinuate in front of relatively sharp median angles, latter very narrowly separated; frontal space not as wide as in *Y. draco* or *Y. boysi*; margin of temporal lobe posterior to median angle concave, occipital angle distinct. Mentum (Fig. 2) with single curved row of setae along anterior margin; one pair of postlabial setae. Both clypeus and labrum with one pair of large setae.

Pronotum (Fig. 1) elongate, its sides slightly convex, widest point posteriad the middle, slightly narrowed at the base, more strongly at apex. Lateral pronotal margin sinuate anterior to hind angle, without lateral setae. Marginal grooves complete. Discal striole 0.53 of pronotal length. Precoxal carina absent. Prosternal process with shallow, slightly elongated medial fovea between coxal cavities and terminally with deep and large, strongly transverse fovea.

Punctures of elytral striae fine, slightly elongated in inner striae; striae II-III abbreviated at base; stria VI strongly reduced, formed only by few (5-6) small punctures near the elytral midlength; stria VII present only on posterior half of elytron. Inner elytral striae deeply impressed, intervals strongly convex. Humeral tubercle moderately prominent. Elytral setae absent, only transverse apical portion of elytral stria VII with row of 5-8 setae. Metasternum punctured only along lateral margins, in the middle with shallow longitudinal depression. Abdominal sternites punctured, towards the middle punctures smaller and sparser. Abdominal sternite III with shallow basal pit, abdominal sternite IV with shallow lateral pits.

Anterior femur with ventral tooth, male without modifications of anterior tibia. Hind calcar of male (Fig. 3) relatively large, its tip blunt. Median lobe of aedeagus as in Fig. 4.



Figs 1-4. *Yamatosa jakli* sp. nov.: 1- head and pronotum, dorsal view; 2- mentum; 3- hind tibia of male; 4- median lobe of aedeagus. Scale bars 1.0 mm.

**Differential diagnosis.** The newly described species is characterized by unique set of characters and differs from all its congeners by the following combination of characters: pronotal marginal groove complete, prothoracic pleuron impunctate, discal striole of pronotum extends anteriorly 0.5 length of pronotum, prosternum without distinct precoxal carina, antennomere XI without stylet, mentum with punctures, profemoral tooth present in male, eyes not reduced, head widest across the eyes, elytral striae VI and VII strongly reduced, but not absent, hind calcar of male large.

Species with absent or reduced pronotal marginal groove (*Y. sinensis* R. T. Bell et J. R. Bell, 1987, *Y. reitteri* (R. T. Bell, 1977) and *Y. schawalleri* R. T. Bell et J. R. Bell, 2002) are easily recognizable from *Y. jakli* sp. nov.; but the last species mentioned (*Y. schawalleri*) occurs together with *Y. jakli* on Borneo and shares with this species some of important



characters (reduction in elytral striae VI and VII, chaetotaxy of elytron and mentum, presence of femoral tooth etc.). It is not possible to exclude near relationships between these species.

*Y. jakli* sp. nov. differs from its congeners with complete pronotal marginal groove by impunctate prothoracic pleuron (x *Y. kryzhanovskyi* R. T. Bell et J. R. Bell, 1985), by short discal pronotal striole (x *Y. arrowi* (Grouvelle, 1908)), by absence of precoxal carina (x *Y. longior* (Grouvelle, 1903 and *Y. peninsularis* (Arrow, 1942)), by absence of antennal stylet (x *Y. nipponensis* (Lewis, 1888), *Y. kabakovi* R. T. Bell et J. R. Bell, 1985 and *Y. phuka* R. T. Bell et J.R. Bell, 2009), by presence of profemoral tooth (x *Y. smetanorum* R. T. Bell et J. R. Bell, 1989) and by not reduced eyes (x *Y. draco* (R. T. Bell, 1977) and *Y. boyosi* (Arrow, 1901)).

**Name derivation.** The species is named in honour of its collector, Stanislav Jákl.

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